

# SECTION 3

## Enrichment

# Radiation Around Us

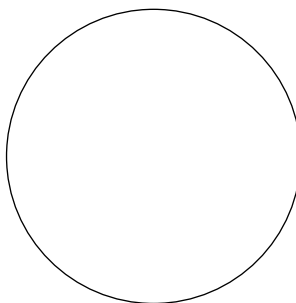
In this activity, you will learn how radiation comes from different sources. Radiation is sometimes measured in a unit called a rem. This is a measure of the power of radiation to cause ionization in human tissue. The average person receives about 200 mrem (millirem) per year from background sources of radiation.

The data table below lists the relative amount of radiation from various background sources. You will calculate the percent each source represents of the whole. The circle below will represent the total 200 mrem of the background radiation. You will divide the circle into wedges. Each wedge will represent the percentage amount of the total background radiation of that source. Label each wedge with the correct letter. The size of the wedge, in degrees, can be found by multiplying the percent for the source by 360. See the example in the table.

Source of radiation	Dose (mrem)	% of total	Size of wedge
A. Natural background *	135.2		
B. Medical (X-rays)	61.4	30.7	110.5°
C. Nuclear fallout	1.2		
D. Miscellaneous **	1.0		
E. Occupational	0.9		
F. Nuclear industry	0.3		
Totals	200.0	100	360°

\* Natural background radiation includes cosmic rays, rocks, soil, water, and air sources.

\*\* Miscellaneous radiation includes color TV tubes, air travel, and consumer products.



1. What are some of the ways of reducing your background sources of radiation?

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2. What sources of background radiation are most difficult to avoid? \_\_\_\_\_

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